

# SAFETY DATA SHEET

## 1. Identification

| Product identifier              | 2,2',4,4',6-Pentachlorobiphenyl Solution |  |
|---------------------------------|--|--|
| Other means of identification   |  |  |
| Item                            | BZ-100J1                                 |  |
| Recommended use                 | For Laboratory Use Only                  |  |
| Recommended restrictions        | None known.                              |  |
| Manufacturer/Importer/Supplier/ | Distributor information                  |  |
| Manufacturer                    |  |  |
| Company name                    | Chem Service, Inc.                       |  |
| Address                         | 660 Tower Lane                           |  |
|                                 | West Chester, PA 19380                   |  |
|                                 | United States                            |  |
| Telephone                       | Toll Free 800-452-9994                   |  |
|                                 | Direct 610-692-3026                      |  |
| Website                         | www.chemservice.com                      |  |
| E-mail                          | info@chemservice.com                     |  |
| Emergency phone number          | Chemtrec US 800-424-9300                 |  |
|                                 | Chemtrec outside US +1 703-527-3887      |  |
| 2. Hazard(s) identification     |  |  |

### 2. Hazard(S) identification

| Physical hazards      | Flammable liquids                                      | Category 2                  |
|-----------------------|--|-----------------------------|
| Health hazards        | Acute toxicity, oral                                   | Category 2                  |
|                       | Skin corrosion/irritation                              | Category 2                  |
|                       | Serious eye damage/eye irritation                      | Category 2A                 |
|                       | Reproductive toxicity (fertility)                      | Category 2                  |
|                       | Specific target organ toxicity, single exposure        | Category 3 narcotic effects |
|                       | Specific target organ toxicity, repeated exposure      | Category 1                  |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard     | Category 2                  |
|                       | Hazardous to the aquatic environment, long-term hazard | Category 2                  |
| OSHA defined hazards  | Not classified.  |                             |
| Label elements        |  |                             |



Signal word Hazard statement

Highly flammable liquid and vapor. Fatal if swallowed. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

### **Precautionary statement** Prevention

| Response                                     | If swallowed: Immediately call a poison center/doctor. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Specific treatment (see this label). Rinse mouth. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage. |
|--|--|
| Storage                                      | Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.   |
| Disposal                                     | Dispose of contents/container in accordance with local/regional/national/international regulations.  |
| Hazard(s) not otherwise<br>classified (HNOC) | Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.  |
| Supplemental information                     | 0.99% of the mixture consists of component(s) of unknown acute oral toxicity. 0.99% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 0.99% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.  |

## 3. Composition/information on ingredients

#### Mixtures

| Chemical name                   | Common name and synonyms | CAS number | %        |
|---------------------------------|--------------------------|------------|----------|
| n-Hexane                        |                          | 110-54-3   | 90 - 100 |
| 2,2',4,4',6-Pentachlorobiphenyl |                          | 39485-83-1 | 0.01     |

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

| 4. First-aid measures  |  |
|--|--|
| Inhalation   | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.  |
| Skin contact   | Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.   |
| Eye contact  | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.  |
| Ingestion  | Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.   |
| Most important<br>symptoms/effects, acute and<br>delayed                     | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. May cause redness and pain. Prolonged exposure may cause chronic effects.   |
| Indication of immediate<br>medical attention and special<br>treatment needed | Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.   |
| General information  | Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.   |
| 5. Fire-fighting measures  |  |
| Suitable extinguishing media   | Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.  |
| Unsuitable extinguishing media   | Do not use water jet as an extinguisher, as this will spread the fire.   |
| Specific hazards arising from the chemical                                   | Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed. |
| Special protective equipment<br>and precautions for firefighters             | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.  |
| Fire-fighting<br>equipment/instructions                                      | In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.   |
| Specific methods   | Use standard firefighting procedures and consider the hazards of other involved materials.   |

#### General fire hazards

Highly flammable liquid and vapor.

## 

| 6. Accidental release meas  | ures  |
|---|---|
| Personal precautions,<br>protective equipment and<br>emergency procedures | Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people<br>away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no<br>smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and<br>clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or<br>spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before<br>entering them. Use appropriate containment to avoid environmental contamination. Transfer by<br>mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery<br>or safe disposal. Local authorities should be advised if significant spillages cannot be contained.<br>For personal protection, see section 8 of the SDS.   |
| Methods and materials for containment and cleaning up                     | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.  |
|   | Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.   |
|   | Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  |
| Environmental precautions   | Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.  |
| 7. Handling and storage   |   |
| Precautions for safe handling   | Obtain special instructions before use. Do not handle until all safety precautions have been read<br>and understood. Vapors may form explosive mixtures with air. Do not handle, store or open near<br>an open flame, sources of heat or sources of ignition. Protect material from direct sunlight.<br>Minimize fire risks from flammable and combustible materials (including combustible dust and<br>static accumulating liquids) or dangerous reactions with incompatible materials. Handling<br>operations that can promote accumulation of static charges include but are not limited to: mixing,<br>filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container<br>filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take<br>precautionary measures against static discharges. All equipment used when handling the product<br>must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or<br>vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid contact<br>during pregnancy/while nursing. Avoid prolonged exposure. Avoid contact with clothing. Provide<br>adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial<br>hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.<br>Avoid release to the environment. Do not empty into drains. |
|   | For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".  |
| Conditions for safe storage,<br>including any incompatibilities           | Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Avoid spark promoters. Eliminate sources of ignition. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.   |
| 8. Exposure controls/perso  | onal protection   |
| Occupational exposure limits  |   |

| US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) |      |                       |  |
|---|------|-----------------------|--|
| Components  | Туре | Value                 |  |
| n-Hexane (CAS 110-54-3)   | PEL  | 1800 mg/m3<br>500 ppm |  |

| Components   | Ţ  | уре  |  | Value  |   |
|--|--|--|--|--|---|
| n-Hexane (CAS 110-54-3)                              | יד   | WA   |  | 50 ppm   |   |
| US. NIOSH: Pocket Guide                              | to Chemical Hazar  | ds   |  |  |   |
| Components   | T  | уре  |  | Value  |   |
| 2,2',4,4',6-Pentachlorobiphe<br>nyl (CAS 39485-83-1) | יד ד   | WA   |  | 0.001 mg/m3  |   |
| n-Hexane (CAS 110-54-3)                              | יד   | WA   |  | 180 mg/m3  |   |
|  |  |  |  | 50 ppm   |   |
| iological limit values                               |  |  |  |  |   |
| ACGIH Biological Exposu                              |  |  |  | <b>• •</b>   |   |
| Components   | Value  | Determinar   | t Specimer   | n Sampling Time  |   |
| n-Hexane (CAS 110-54-3)                              | 0.4 mg/l   | 2,5-Hexane<br>n, without<br>hydrolysis   | dio Urine  | *  |   |
| * - For sampling details, plea                       | ase see the source of  | locument.  |  |  |   |
| xposure guidelines                                   |  |  |  |  |   |
| US - California OELs: Skir                           | designation  |  |  |  |   |
| n-Hexane (CAS 110-54                                 | ,  |  | an be absorbed th  | rough the skin.  |   |
| US ACGIH Threshold Limi                              |  | -  |  |  |   |
| n-Hexane (CAS 110-54                                 | -3)  | C  | an be absorbed th  | rough the skin.  |   |
| ppropriate engineering<br>ontrols                    | changes per hou<br>applicable, use p<br>maintain airborn<br>established, mai | ur) should be used<br>process enclosure<br>e levels below red<br>intain airborne lev | d. Ventilation rates<br>es, local exhaust v<br>commended expos | on. Good general ventilation<br>s should be matched to cond<br>rentilation, or other engineeri<br>sure limits. If exposure limits<br>ole level. Eye wash facilities<br>ct. | litions. If<br>ing controls to<br>have not been |
| ndividual protection measure                         | s, such as persona   | I protective equi  | pment  |  |   |
| Eye/face protection                                  | Wear safety glas   | sses with side shi   | elds (or goggles).   |  |   |
| Skin protection                                      |  |  |  |  |   |
| Hand protection                                      | Wear appropriat  | e chemical resista   | ant gloves.  |  |   |
| Other  | Wear appropriat  | e chemical resista   | ant clothing.  |  |   |
| Respiratory protection                               | limits (where app  | plicable) or to an a   |  | centrations below recomme<br>n countries where exposure<br>worn.   | •   |
| Thermal hazards                                      | Wear appropriat  | e thermal protecti   | ve clothing, when  | necessary.   |   |
| eneral hygiene                                       |  |  |  | serve good personal hygiene<br>ating, drinking, and/or smok  |   |

## 9. Physical and chemical properties

| Appearance                              |                                 |
|---|---------------------------------|
| Physical state                          | Liquid.                         |
| Form                                    | Liquid                          |
| Color                                   | Not available.                  |
| Odor                                    | Not available.                  |
| Odor threshold                          | Not available.                  |
| рН                                      | Not available.                  |
| Melting point/freezing point            | -137.74 °F (-94.3 °C) estimated |
| Initial boiling point and boiling range | 155.66 °F (68.7 °C) estimated   |
| Flash point                             | -7.0 °F (-21.7 °C) estimated    |
| Evaporation rate                        | Not available.                  |
| Flammability (solid, gas)               | Not available.                  |
| Upper/lower flammability or expl        | osive limits                    |
| Flammability limit - lower<br>(%)       | Not available.                  |
| Flammability limit - upper<br>(%)       | Not available.                  |

Material name: 2,2',4,4',6-Pentachlorobiphenyl Solution

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| Explosive limit - lower (%)                | Not available.   |
|--|--|
| Explosive limit - upper (%)                | Not available.   |
| Vapor pressure                             | 202.64 hPa estimated   |
| Vapor density                              | Not available.   |
| Relative density                           | Not available.   |
| Solubility(ies)                            |  |
| Solubility (water)                         | Not available.   |
| Partition coefficient<br>(n-octanol/water) | Not available.   |
| Auto-ignition temperature                  | 437 °F (225 °C) estimated  |
| Decomposition temperature                  | Not available.   |
| Viscosity                                  | Not available.   |
| Other information                          |  |
| Density                                    | 0.65 g/cm3 estimated   |
| Flammability class                         | Flammable IB estimated   |
| Specific gravity                           | 0.65 estimated   |
| 10. Stability and reactivity               |  |
| Reactivity                                 | The product is stable and non-reactive under normal conditions of use, storage and transport.  |
| Chemical stability                         | Material is stable under normal conditions.  |
| Possibility of hazardous<br>reactions      | Hazardous polymerization does not occur.   |
| Conditions to avoid                        | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials                     | Strong oxidizing agents.   |
| Hazardous decomposition<br>products        | No hazardous decomposition products are known.   |

## 11. Toxicological information

## Information on likely routes of exposure

|  | •  |
|--|--|
| Ingestion  | Fatal if swallowed.  |
| Inhalation   | Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.<br>Prolonged inhalation may be harmful. May cause damage to organs by inhalation.   |
| Skin contact   | Causes skin irritation.  |
| Eye contact  | Causes serious eye irritation.   |
| Symptoms related to the physical, chemical and toxicological characteristics | Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. |

### Information on toxicological effects

Acute toxicity

Fatal if swallowed. Narcotic effects. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

| Components              | Species | Test Results         |
|-------------------------|---------|----------------------|
| n-Hexane (CAS 110-54-3) |         |                      |
| Acute                   |         |                      |
| Dermal                  |         |                      |
| LD50                    | Rabbit  | > 2000 mg/kg         |
|                         |         | > 5 ml/kg            |
| Inhalation              |         |                      |
| LC50                    | Mouse   | 48000 ppm, 4 Hours   |
|                         | Rat     | > 5000 ppm, 24 Hours |
|                         |         | > 31.86 mg/l         |
|                         |         | 73860 ppm, 4 Hours   |
| Oral                    |         |                      |
| LD50                    | Rat     | 24 mg/kg             |
|                         |         | 24 ml/kg             |
|                         |         |                      |

| Components   | Species   | Test Results   |  |
|--|---|--|--|
|  | Wistar rat  | 49 mg/kg   |  |
| * Estimates for product may b  | be based on additional componer   | it data not shown.   |  |
| Skin corrosion/irritation  | Causes skin irritation.   |  |  |
| erious eye damage/eye<br>rritation   | Causes serious eye irritation.  |  |  |
| Respiratory or skin sensitization  | n   |  |  |
| Respiratory sensitization  | Not available.  |  |  |
| Skin sensitization   | This product is not expected to cause skin sensitization.   |  |  |
| Germ cell mutagenicity   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.  |  |  |
| arcinogenicity   | This product is not considered  | to be a carcinogen by IARC, ACGIH, NTP, or OSHA.   |  |
| 2,2',4,4',6-Pentachlorobi<br>US. National Toxicology Pro   | Evaluation of Carcinogenicity<br>ohenyl (CAS 39485-83-1)<br>ogram (NTP) Report on Carcine   | -  |  |
|  | ohenyl (CAS 39485-83-1)<br>ulated Substances (29 CFR 191  | Reasonably Anticipated to be a Human Carcinogen.<br>10.1001-1050)  |  |
| Reproductive toxicity  | Suspected of damaging fertility   | /.   |  |
| Specific target organ toxicity -<br>ingle exposure   | Narcotic effects.   |  |  |
| Specific target organ toxicity -<br>epeated exposure   | Causes damage to organs three   | bugh prolonged or repeated exposure.   |  |
| spiration hazard   | Not available.  |  |  |
| hronic effects   | Prolonged inhalation may be h exposure.   | armful. Causes damage to organs through prolonged or repeated  |  |
| 12 Feelewisel information  |   |  |  |
| 2. Ecological information  | 1   |  |  |
| •  |   | asting effects. Accumulation in aquatic organisms is expected.   |  |
| cotoxicity   |   | asting effects. Accumulation in aquatic organisms is expected.<br><b>Test Results</b>  |  |
| cotoxicity<br>Components   | Toxic to aquatic life with long l   |  |  |
| cotoxicity   | Toxic to aquatic life with long l   |  |  |
| Components<br>n-Hexane (CAS 110-54-3)  | Toxic to aquatic life with long l<br><b>Species</b>   |  |  |
| Components<br>n-Hexane (CAS 110-54-3)<br>Aquatic<br>Fish   | Toxic to aquatic life with long l<br><b>Species</b>   | Test Results<br>w (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours   |  |
| Components<br>n-Hexane (CAS 110-54-3)<br>Aquatic<br>Fish<br>* Estimates for product may b  | Toxic to aquatic life with long l<br>Species  | Test Results<br>w (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours<br>at data not shown.   |  |
| Ecotoxicity<br>Components<br>n-Hexane (CAS 110-54-3)<br>Aquatic<br>Fish<br>* Estimates for product may b<br>Persistence and degradability  | Toxic to aquatic life with long l<br>Species<br>LC50 Fathead minne<br>be based on additional componer   | Test Results<br>w (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours<br>at data not shown.   |  |
| Components Components n-Hexane (CAS 110-54-3) Aquatic Fish * Estimates for product may b Persistence and degradability   | Toxic to aquatic life with long I<br>Species<br>LC50 Fathead minno<br>be based on additional componer<br>No data is available on the deg<br>No data available.  | Test Results<br>w (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours<br>at data not shown.   |  |
| Components Components n-Hexane (CAS 110-54-3) Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential Partition coefficient n-octar n-Hexane  | Toxic to aquatic life with long I<br>Species<br>LC50 Fathead minno<br>be based on additional componer<br>No data is available on the deg<br>No data available.  | Test Results<br>w (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours<br>at data not shown.<br>gradability of this product.   |  |
| Ecotoxicity<br>Components<br>n-Hexane (CAS 110-54-3)<br>Aquatic<br>Fish<br>* Estimates for product may b<br>Persistence and degradability<br>Bioaccumulative potential<br>Partition coefficient n-octar<br>n-Hexane<br>Mobility in soil  | Toxic to aquatic life with long l<br>Species<br>LC50 Fathead minno<br>be based on additional componer<br>No data is available on the deg<br>No data available.<br><b>nol / water (log Kow)</b><br>No data available.<br>No data available.  | Test Results<br>w (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours<br>at data not shown.<br>gradability of this product.   |  |
| Ecotoxicity<br>Components<br>n-Hexane (CAS 110-54-3)<br>Aquatic<br>Fish<br>* Estimates for product may b<br>Persistence and degradability<br>Bioaccumulative potential<br>Partition coefficient n-octar<br>n-Hexane<br>Mobility in soil<br>Other adverse effects   | Toxic to aquatic life with long I         Species         LC50       Fathead minnom         be based on additional component         No data is available on the deg         No data available.         nol / water (log Kow)         No data available.         No other adverse environment potential, endocrine disruption  | Test Results<br>w (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours<br>at data not shown.<br>gradability of this product.<br>3.9<br>al effects (e.g. ozone depletion, photochemical ozone creation  |  |
| Ecotoxicity<br>Components<br>n-Hexane (CAS 110-54-3)<br>Aquatic<br>Fish<br>* Estimates for product may b<br>Persistence and degradability<br>Bioaccumulative potential<br>Partition coefficient n-octar<br>n-Hexane<br>Mobility in soil<br>Other adverse effects<br>I3. Disposal consideratio  | Toxic to aquatic life with long I<br>Species<br>LC50 Fathead minno<br>be based on additional componer<br>No data is available on the deg<br>No data available.<br><b>nol / water (log Kow)</b><br>No data available.<br>No other adverse environment<br>potential, endocrine disruption<br><b>ns</b><br>Collect and reclaim or dispose<br>and its container must be disp<br>sewers/water supplies. Do not   | Test Results<br>w (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours<br>at data not shown.<br>gradability of this product.<br>3.9<br>al effects (e.g. ozone depletion, photochemical ozone creation  |  |
| cotoxicity<br><u>Components</u><br>n-Hexane (CAS 110-54-3)<br><u>Aquatic</u><br>Fish<br>* Estimates for product may be<br>ersistence and degradability<br>ioaccumulative potential<br><u>Partition coefficient n-octar</u><br>n-Hexane<br>lobility in soil<br>other adverse effects<br><b>3. Disposal consideratio</b><br>isposal instructions | Toxic to aquatic life with long I<br>Species<br>LC50 Fathead minno<br>be based on additional componer<br>No data is available on the deg<br>No data available.<br><b>nol / water (log Kow)</b><br>No data available.<br>No other adverse environment<br>potential, endocrine disruption<br><b>ns</b><br>Collect and reclaim or dispose<br>and its container must be disp<br>sewers/water supplies. Do not<br>container. Dispose of contents   | Test Results         ww (Pimephales promelas)       2.101 - 2.981 mg/l, 96 hours         at data not shown.       gradability of this product.         3.9       3.9         al effects (e.g. ozone depletion, photochemical ozone creation , global warming potential) are expected from this component.         in sealed containers at licensed waste disposal site. This materious of as hazardous waste. Do not allow this material to drain in contaminate ponds, waterways or ditches with chemical or used /container in accordance with local/regional/national/international |  |
| Ecotoxicity<br>Components<br>n-Hexane (CAS 110-54-3)<br>Aquatic<br>Fish<br>* Estimates for product may b<br>Persistence and degradability<br>Bioaccumulative potential<br>Partition coefficient n-octar<br>n-Hexane<br>Mobility in soil<br>Other adverse effects<br>I3. Disposal consideratio<br>Disposal instructions                         | Toxic to aquatic life with long I<br>Species<br>LC50 Fathead minno<br>be based on additional componer<br>No data is available on the deg<br>No data available.<br><b>nol / water (log Kow)</b><br>No data available.<br>No data available.<br>No data available.<br>No data available.<br>No data available.<br>No data available.<br>No other adverse environment<br>potential, endocrine disruption<br><b>ns</b><br>Collect and reclaim or dispose<br>and its container must be disp<br>sewers/water supplies. Do not<br>container. Dispose of contents<br>regulations.<br>Dispose in accordance with all   | Test Results         ww (Pimephales promelas)       2.101 - 2.981 mg/l, 96 hours         at data not shown.       gradability of this product.         3.9       3.9         al effects (e.g. ozone depletion, photochemical ozone creation , global warming potential) are expected from this component.         in sealed containers at licensed waste disposal site. This materio ocontainers at licensed waste disposal site. This materio ocontainer in accordance with local/regional/national/international   |  |
| n-Hexane (CAS 110-54-3)<br>Aquatic<br>Fish<br>* Estimates for product may b<br>Persistence and degradability<br>Bioaccumulative potential<br>Partition coefficient n-octar   | Toxic to aquatic life with long I<br>Species<br>LC50 Fathead minno<br>be based on additional componer<br>No data is available on the deg<br>No data available.<br><b>nol / water (log Kow)</b><br>No data available.<br>No other adverse environment<br>potential, endocrine disruption<br><b>ns</b><br>Collect and reclaim or dispose<br>and its container must be disp<br>sewers/water supplies. Do not<br>container. Dispose of contents<br>regulations.<br>Dispose in accordance with all<br>The waste code should be ass<br>disposal company.<br>Dispose of in accordance with | Test Results         ww (Pimephales promelas)       2.101 - 2.981 mg/l, 96 hours         at data not shown.       gradability of this product.         3.9       3.9         al effects (e.g. ozone depletion, photochemical ozone creation , global warming potential) are expected from this component.         in sealed containers at licensed waste disposal site. This material to drain in contaminate ponds, waterways or ditches with chemical or used /container in accordance with local/regional/national/international applicable regulations.                            |  |

## 14. Transport information

DOT

| DOT                            |   |
|--------------------------------|---|
| UN number                      | UN1208  |
| UN proper shipping name        | Hexanes, solution, MARINE POLLUTANT                                     |
| Transport hazard class(es)     |   |
| Class                          | 3   |
| Subsidiary risk                | -   |
| Label(s)                       | 3   |
| Packing group                  | II  |
| Environmental hazards          |   |
| Marine pollutant               | Yes   |
| -                              | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions             | IB2, T4, TP1  |
| Packaging exceptions           | 150   |
| Packaging non bulk             | 202   |
| Packaging bulk                 | 242   |
| ΙΑΤΑ                           |   |
| UN number                      | UN1208  |
| UN proper shipping name        | Hexanes solution  |
| Transport hazard class(es)     |   |
| Class                          | 3   |
| Subsidiary risk                | -   |
| Packing group                  | II  |
| Environmental hazards          | No.   |
| ERG Code                       | 3H  |
| Special precautions for user   | Read safety instructions, SDS and emergency procedures before handling. |
| Other information              |   |
| Passenger and cargo            | Allowed.  |
| aircraft                       |   |
| Cargo aircraft only            | Allowed.  |
| IMDG                           |   |
| UN number                      | UN1208  |
| UN proper shipping name        | HEXANES SOLUTION, MARINE POLLUTANT                                      |
| Transport hazard class(es)     |   |
| Class                          | 3   |
| Subsidiary risk                | -   |
| Packing group                  | II  |
| Environmental hazards          |   |
| Marine pollutant               | Yes   |
| EmS                            | F-E, S-D  |
| Special precautions for user   | Read safety instructions, SDS and emergency procedures before handling. |
| Transport in bulk according to | Not available.  |
| Annex II of MARPOL 73/78 and   |   |
| the IBC Code                   |   |
| DOT                            |   |
|                                |   |



IATA; IMDG



Marine pollutant



## 15. Regulatory information

| TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)         2,2',4,4',6-Pentachlorobiphenyl (CAS 39485-83-1)       0.00005 % Annual Export Notification required.         CERCLA Hazardous Substance List (40 CFR 302.4)       n-Hexane (CAS 110-54-3)         n-Hexane (CAS 110-54-3)       Listed.         SARA 304 Emergency release notification       Not regulated.         US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)       Not listed. |
|--|
| CERCLA Hazardous Substance List (40 CFR 302.4)<br>n-Hexane (CAS 110-54-3) Listed.<br>SARA 304 Emergency release notification<br>Not regulated.<br>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)   |
| SARA 304 Emergency release notification<br>Not regulated.<br>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)  |
|  |
|  |
| Superfund Amendments and Reauthorization Act of 1986 (SARA)  |
| Hazard categories       Immediate Hazard - Yes         Delayed Hazard - Yes       Delayed Hazard - Yes         Fire Hazard - Yes       Pressure Hazard - No         Reactivity Hazard - No   |
| SARA 302 Extremely hazardous substance   |
| Not listed.  |
| SARA 311/312 Hazardous No<br>chemical  |
| SARA 313 (TRI reporting)   |
| Chemical name CAS number % by wt.  |
| n-Hexane 110-54-3 90 - 100   |
| Other federal regulations  |
| Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List   |
| n-Hexane (CAS 110-54-3)  |
| Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)   |
| Not regulated.   |
| Safe Drinking Water Act Not regulated. (SDWA)  |
| US state regulations   |
| US. Massachusetts RTK - Substance List   |
| 2,2',4,4',6-Pentachlorobiphenyl (CAS 39485-83-1)<br>n-Hexane (CAS 110-54-3)  |
| US. New Jersey Worker and Community Right-to-Know Act  |
| 2,2',4,4',6-Pentachlorobiphenyl (CAS 39485-83-1) 500 LBS<br>n-Hexane (CAS 110-54-3) 500 LBS  |

#### US. Pennsylvania RTK - Hazardous Substances

2,2',4,4',6-Pentachlorobiphenyl (CAS 39485-83-1)

n-Hexane (CAS 110-54-3)

## **US. Rhode Island RTK**

n-Hexane (CAS 110-54-3)

#### **US. California Proposition 65**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

#### US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

2,2',4,4',6-Pentachlorobiphenyl (CAS 39485-83-1) Listed: October 1, 1989

US - California Proposition 65 - CRT: Listed date/Developmental toxin

2,2',4,4',6-Pentachlorobiphenyl (CAS 39485-83-1) Listed: January 1, 1991

#### **International Inventories**

| Country(s) or region        | Inventory name  | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Australia                   | Australian Inventory of Chemical Substances (AICS)                        | Yes                    |
| Canada                      | Domestic Substances List (DSL)  | Yes                    |
| Canada                      | Non-Domestic Substances List (NDSL)                                       | No                     |
| China                       | Inventory of Existing Chemical Substances in China (IECSC)                | Yes                    |
| Europe                      | European Inventory of Existing Commercial Chemical<br>Substances (EINECS) | Yes                    |
| Europe                      | European List of Notified Chemical Substances (ELINCS)                    | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)                  | No                     |
| Korea                       | Existing Chemicals List (ECL)   | Yes                    |
| New Zealand                 | New Zealand Inventory   | No                     |
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS)         | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                             | Yes                    |

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

### 16. Other information, including date of preparation or last revision

| Issue date   | 04-21-2014   |
|--------------|--|
| Version #    | 01   |
| NFPA ratings | Health: 2<br>Flammability: 3<br>Instability: 0   |
| Disclaimer   | The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.  |
|              | Persons not specifically and properly trained should not handle this chemical or its container. This product is furnished FOR LABORATORY USE ONLY! Our products may NOT BE USED as drugs, cosmetics, agricultural or pesticide products, food additives or as household chemicals.   |
|              | This Safety Data Sheet (SDS) is intended only for use with Chem Service, Inc. products and should not be relied on for use with materials from any other supplier even if the chemical name(s) on the product are identical! Whenever using an SDS for a solution or mixture the user should refer to the SDS for every component of the solution or mixture. Chem Service warrants that this SDS is based upon the most current information available to Chem Service at the time it was last revised. THIS WARRANTY IS EXCLUSIVE, AND CHEM SERVICE, INC. MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. This SDS is provided gratis and CHEM SERVICE, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR CONTINGENT DAMAGES. |
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